

INEEL- CAB TRAVEL REPORT
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On October 12 and 13, 1999, I was a stakeholder participant in the High-Level Waste Tank Closure Workshop in Las Vegas. There were approximately 60 participants consisting primarily of DOE personnel, contractor employees, state regulators and stakeholders from each of the five sites with tanks (SRS, INEEL, Hanford, ORNL and West Valley) as well as representatives from DOE-HQ, the NRC and a few others. Ken Picha of DOE- HQ was the nominal presider and Cathy Howard of SRS facilitated. It was an informative and worthwhile meeting, and I would encourage the CAB to have a representative at future tank closure workshops.

The workshop began with each of the five sites giving an approximately one-hour presentation on the status of their tank closure activities. Site DOE people led these presentations, but contractors and stakeholders also spoke. Handouts from each of these presentations have been placed in the Jason files, so rather than summarizing them, I will mention only a few things that particularly caught my attention.

SAVANNAH RIVER. SRS has 51 tanks; during the past year two of these have undergone operational closure (emptied and no longer useable) and are being processed toward RCRA closure. SRS has good vitrification plant operation, but waste retrieval, transfer and feed are significant problems.

INEEL. Keith Lockie and Ed Anderson presented plans for closure of INEEL HLW tanks- this was very similar to the presentation at the July CAB meeting. I was introduced as a member of the CAB so I prefaced my comments with the disclaimer that they were my observations and did not necessarily indicate CAB agreement. My comments were:

A. Idaho public interest in INEEL has recently been focused on calciners, WIPP shipments, incinerators, Pit 9, and changing contractors rather than tank closure. We do not have any known leaking tanks, so "aquifer protection" and "risk reduction" are terms that generate more public interest than "tank closure."

B. The INEEL CAB appreciates being kept informed, including a presentation at our July meeting regarding tank closure plans and also being invited to observe the grouting mock-up test.

C. Idaho stakeholders are very concerned about aquifer protection and within that general concern the INEEL CAB supports expeditious tank closure. Calcining is a step, but we need to proceed with vitrification, grouting or some other permanent disposal of HLW.

D. The INEEL CAB has made recommendations about tanks and HLW.

1. Relating to the baseline disposition maps in the *Paths to Closure* document we recommended not locking in to grouting low activity waste back into the tanks.

2. We recommended consideration of alternatives to calcining sodium-bearing

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wastes because the calcine, although it reduces short-term risk, must be re-liquefied prior to treatment for disposal.

E. The INEEL CAB, like many other stakeholders, is very interested in the HLW DEIS. If it is ever released to the public we intend to review it thoroughly and will likely make recommendations.

F. I appreciate the opportunity to participate in this workshop.

Some questions following the INEEL presentation:

Q. Will there be monitoring of radioactivity levels during the tank flushing operation?

A. None is planned,

Q. Without a target rad-level, how will you decide when to quit flushing?

A. When diminishing returns indicate it is appropriate; also we must have contingency plans in case flushing does not meet CERCLA standards for closure.

Q. Why close these tanks when they might be needed to re-dissolve the calcine for treatment and disposal?

A. Regulatory- the tanks are non- RCRA compliant and we can't put HLW into non-compliant tanks. Also, it would be contrary to settlement agreement constraints.

WEST VALLEY. Most of the HLW has been vitrified, producing about 250 filled canisters. By completion there will be about 20 more canisters filled. Vit plant capacity is approximately one ton per day. [too small to be of much use at Hanford]

West Valley tanks (3 @ 750,000 gal. and 1 @ 10,000 gal.) will be filled with a low strength, or reversible, grout that meets performance standards but can be removed by routine excavation techniques (backhoe, etc.) in case it is later decided that the residual waste should be removed.

HANFORD. Hanford has lots of tanks (177) with lots of leakers (67) but no facility for treatment and disposal of liquid HLW. The HAB representative lauded progress at West Valley and SRS but pointed out that Hanford and INEEL are still waiting for HLW processing capability.

OAK RIDGE. The tanks at ORNL do not contain HLW; their presentation focused primarily on the regulatory drivers.

A presentation on NEPA lessons learned from tank closure at SRS. Tank closure is done after waste removal, but it is difficult or impossible to predict how clean the tank will be after waste removal. Consequently it is of questionable value to plan closure details when the amount of residual waste is still unknown- projections may be way off.

Presentation of Yucca Mountain EIS. One assumption is that 32 T of weapons-useable surplus plutonium will be converted to mixed oxide (MOX) reactor fuel. Thus it is not being considered

for disposal at Yucca Mountain.

Regulator Roles/Responsibilities for retrieval, treatment and/or closure (Susan Duvall, Wash. Dept. of Ecology.) DOE is looking to borrow \$6.9 billion from commercial lenders to build and start the Hanford vit plant. Payback will start when glass is produced. Financing is a major hurdle. There ensued a big discussion/controversy about the merits, both financial and environmental, of glass vs. grout for disposal of HLW.

Two Vadose Zone projects related to tank closure.

A. At SRS there is a need to know if tritium in groundwater is coming from an old burial site or a new waste trench. Determination by groundwater sampling would require too many wells so a vadose zone monitoring system has been established to supply necessary data. So far it is working well.

B. At Hanford, vadose zone monitoring is being used for characterization of releases, development of corrective measures and planning for tank closures.

Talk by Keith Quigley and showing of videotape about the INEEL mock-up grouting test. It was a good presentation, and definitely of high interest to participants. A copy of the report and the videotape were given to the CAB and are in the Jason office.

DOE Order 435.1 Radioactive Waste Management and Manual Requirements for Facility Closure and Waste Incidental to Reprocessing. An overview of this order was given and its application at a recent SRS tank closing was described.

New retrieval technologies. Descriptions were given of several new technologies developed during tank closure at SRS and also by the DOE's tank focus area, TFA. There are lots of interesting pumps, extension arms, sprayers, robotics, density monitors, etc. Keith Lockie of DOE-ID is on the TFA management team.